National Institute of Environmental Health Sciences

Human biometeorological evaluation of heat-related mortality in Vienna

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Abstract:

The relationship between heat stress and mortality in the federal state of Vienna (Austria) was analyzed from 1970 to 2007. Long-term trends of mortality data and short-term adaptation to heat stress were considered by two complex approaches. The evaluation is based on the human biometeorological parameter, physiologically equivalent temperature. The results revealed a significant impact of heat stress on the human health, with a significantly higher sensitivity on women compared to men. Additionally, higher risks of deaths due to cardiovascular and respiratory diseases were found. During the long period of 38 years, some significant decreases of the sensitivity were found, especially in the medium heat stress levels. This could indicate active processes of long-term adaptation to the increasing heat stress.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature, Other Exposure

Temperature: Extreme Heat

Other Exposure: physiologically equivalent temperature

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Austria

Health Impact:

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Morbidity/Mortality, Respiratory Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): cardiovascular disease mortality

Respiratory Effect: Other Respiratory Effect

Respiratory Condition (other) : respiratory disease mortality

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified